

Abstract:

This application describes a method and apparatus for precisely pinpointing and locating moving or stationary objects, with application to the real time monitoring of the precise position of airplanes and other vehicles on runways and other portions of airports. The invention is also capable of locating and monitoring equipment for servicing aircraft and the efficient allocation and coordination of the equipment. Additional capabilities of the invention include remote disabling of location sensing for particular objects, automatic generation of alarm conditions when objects are in danger of collision, and automatic broadcast of alarm conditions to occupants of located vehicles or aircraft. Additional applications include location and pinpointing of balls, game equipment, players, and officials in sports; prisoners in prisons; children in childcare facilities; pets in and around homes, apartments or any living areas; animals in farms or zoological gardens (zoo); and more generally subjects in any area with predetermined boundaries. The method employs a continuous wave or pulse transmitter in the object to be located, and requires no high-speed or precision timing circuitry. By incorporating a receiver also in the object, control of the object is also possible.